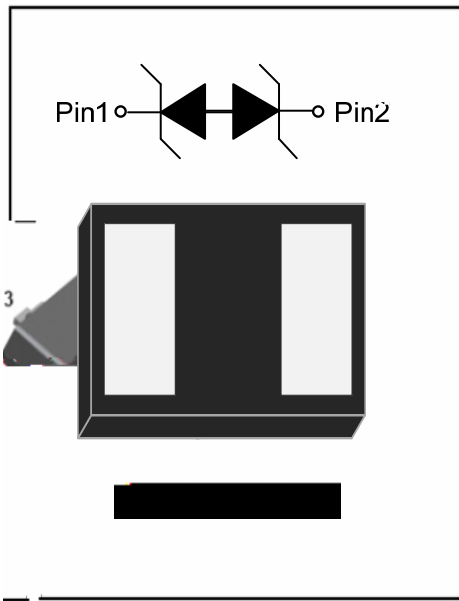


1-Line, Bi-directional, Transient Voltage Suppressor



Features

- Stand-off voltage: $V_{RWM} = 5V$ (typ.)
IEC61000-4-4 (EFT): 80A (5/50ns)
IEC61000-4-5(surge): 90A (8/20 μ s)
- Ultra-low capacitance: $C_j = 180pF$ typ

- Low leakage current
- Low clamping voltage: $V_{CL} = 6V$ typ. @ $I_{PP} = 16A$ (TLP)
- Solid-state silicon technology

Mechanical Data

- **Package:** DFN1006-2L
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** No marking on bi-directional types
- **Marking:**



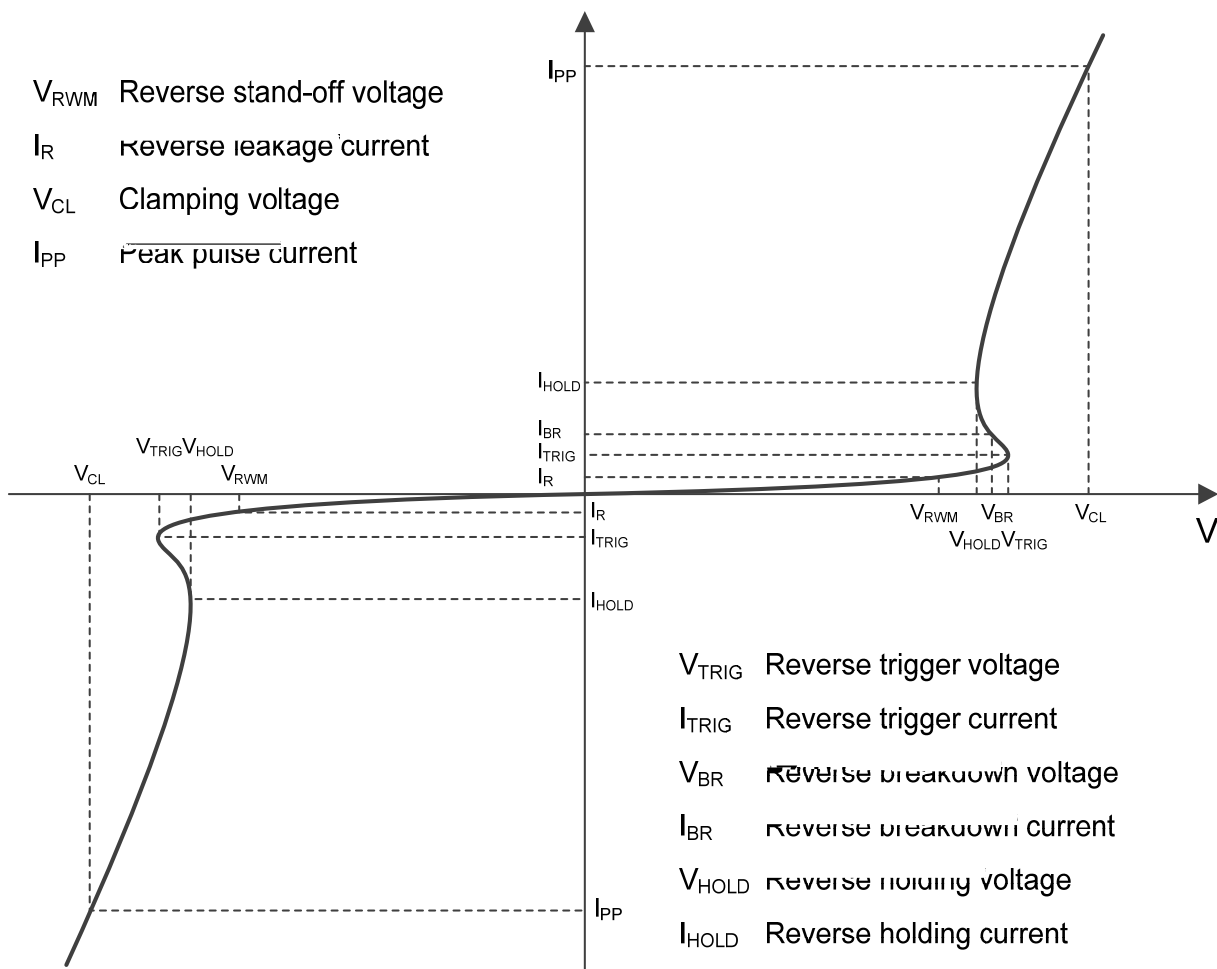
Definitions of electrical characteristics

V_{RWM} Reverse stand-off voltage

I_R Reverse leakage current

V_{CL} Clamping voltage

I_{PP} Peak pulse current





ESD4V5LBA2

■Maximum Ratings

PARAMETER	SYMBOL	Rating	UNIT
		900	W
		90	A
		±30	KV
		±30	KV
		125	°C
		-40~85	°C
		-55~150	°C

			Conditions	Min	Typ	Max
Reverse maximum working voltage	V_{RWM}	V				±4.5
Reverse leakage current	I_R	uA	$V_{RWM} = \pm 4.5V$			1
Reverse breakdown voltage	V_{BR}	V	$I_{BR} = 1mA$	4.6		
Clamping voltage ¹⁾	V_{CL}	V	$I_{PP} = 16A, t_p = 100ns$		6	
Dynamic resistance ¹⁾	R_{DYN}	Ω			0.04	
Clamping voltage ²⁾	V_{CL}	V	$V_{ESD} = 8kV$		7	

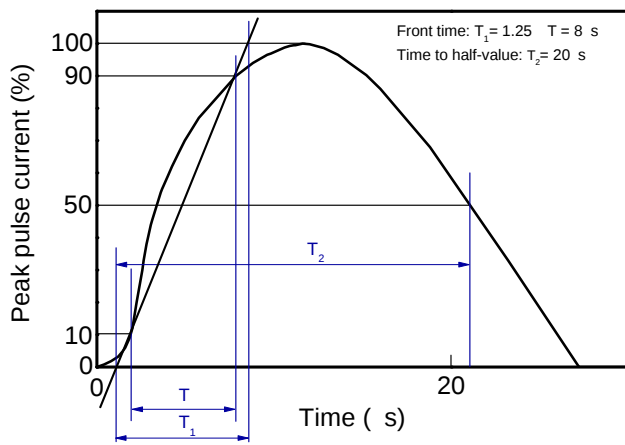
Clamping voltage ³⁾

V_{CL}



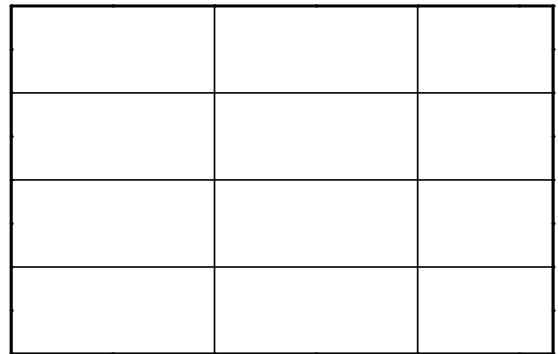
■ Characteristics (Typical)

8/20 μ s waveform per IEC61000-4-5



Clamping voltage vs. Peak pulse current

Contact discharge current waveform per IEC61000-4-2



Capacitance vs. Reverse voltage

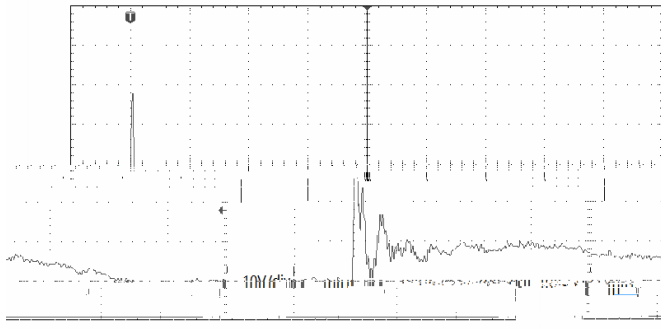
Non-repetitive peak pulse power vs. Pulse time

Power derating vs. Ambient temperature

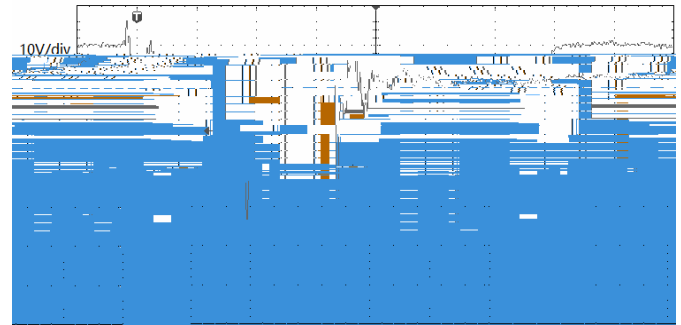


ESD4V5LBA2

ESD clamping
(+8kV contact discharge per IEC61000-4-2)



ESD clamping
(-8kV contact discharge per IEC61000-4-2)

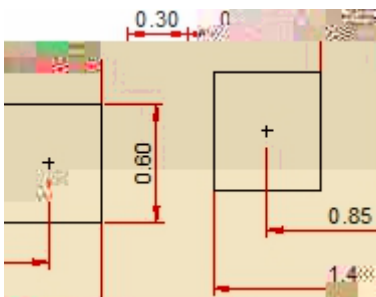


■ Outline Dimensions



Symbol	min. (mm)	Max. (mm)
A	0.95	1.05
B	0.55	0.65
C	0.4	0.5
C1		0.05
D	0.01	0.08
E		0.65
F	0.2	0.3
G	0.45	0.55

■ Recommend land pattern (Unit:mm)



Notes:

This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met



Disclaimer